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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,039	03/03/2004	Yoshinao Katano	8391-50US (KP032419)	4820

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AKIN GUMP STRAUSS HAUER & FELD L.L.P.  
ONE COMMERCE SQUARE  
2005 MARKET STREET, SUITE 2200  
PHILADELPHIA, PA 19103

EXAMINER

REIFSNYDER, DAVID A

ART UNIT PAPER NUMBER

1723

DATE MAILED: 11/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/792,039

Applicant(s)

KATANO, YOSHINAO

Examiner

David A. Reifsnyder

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-7,11,13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,11,13 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 3-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1; the recitation in section (f) of "to remove solids" is vague and indefinite as to whether the removed solids is the same as the solids in section (e). If the solids are the same then the way to correct this problem is to change the recitation of "to remove solids" to --- to remove the solids---.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3-7, 11, 13 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over JP 59-13291 in view of JP 63-126509.

JP 59-13291 discloses a fluid treating apparatus and method, comprising the steps of:

(a) forming a ring lamination by laminating a plurality of filtering rings with contact surfaces facing each other in a laminating direction, each filtering ring comprising a non-porous metal plate having a central hole therein, the hole extending in the lamination direction, the hole extending through the plate in the lamination direction, and each filtering ring having an inner periphery being convexly curved in a radially inward direction and an outer periphery having a wedge shape converging in a radially outward direction and placing the ring lamination in a holder a long cylindrical housing;

(b) providing at least portions of the contact surfaces of the plurality of filtering rings facing each other, the ceramic filtering rings have a contact surface roughness (Ra) in a range of about 5  $\mu\text{m}$  to 10  $\mu\text{m}$ ;

c) pressing in a ring press the ring lamination to cause under a contact pressure (p) in a range of about 0 to 177  $\text{kg/cm}^2$  in the laminating direction of the filtering rings to cause the contact surfaces to closely adhere to each, wherein a gap distance (g) between the portions of the filtering rings closely adhering to and facing each other is in a range of about 5  $\mu\text{m}$  to 10  $\mu\text{m}$  ;

(d) directing with an object fluid supply an object fluid into an interior of the ring lamination via the central holes of the filtering rings, such that the object fluid enters radially outwardly into gaps formed by contact surfaces of adjacent filtering rings of the ring lamination;

(e) dividing the object fluid into a first separated fraction comprising solids and a second separated fraction comprising a fluid, such that the second separated fraction flows thorough the gaps for removal from an exterior of the ring lamination, while the first separated fraction accumulates on the inner periphery of the filtering rings, wherein the speed of the division and separation of the object fluid into the first separated fraction and the second separated fraction is controlled by using a pump or gate valve pressure source to create a pressure difference  $\Delta P = P1 - P2$  between a supply pressure P1 of the object fluid acting on an inlet area ring lamination and a suction pressure P2 acting on an exit area of the ring lamination; and

(f) backwashing with a backwashing device the inner periphery of the filtering rings to remove the solids of the accumulated first separated fraction. (see the supplied translation of JP 59-132911)

JP 59-13291 fails to disclose that in step (f) the removing of the solids of the accumulated first separated fraction can be done by using a rotary brush to scrape the inner periphery of the filtering rings.

JP 63-126509 discloses a fluid treating apparatus and method, comprising the step of using a rotary brush to scrape filtering rings to remove solids which have accumulated on the filtering rings.

It is considered that it would have been obvious to one having ordinary skill in the art at the time of the invention to have replaced the backwashing device of JP 59-13291 with the rotary brush of JP 63-126509 because scrapping causes less of a mess than backwashing. Furthermore, it is easier to dispose of dry solids than wet solids. (see the supplied translation of the Abstract JP 59-132911)

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 3-7, 11, 13 and 14 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

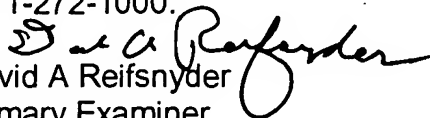
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Reifsnyder whose telephone number is (571) 272-1145. The examiner can normally be reached on M-F 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda M. Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
David A Reifsnyder  
Primary Examiner  
Art Unit 1723

DAR